



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/827,042	04/05/2001	Norman S. Martucci	0153.00075	4862

7590 10/23/2002

Amy E. Rinaldo  
KOHN & ASSOCIATES  
Suite 410  
30500 Northwestern Highway  
Farmington Hills, MI 48334

EXAMINER

HOOK, JAMES F

ART UNIT	PAPER NUMBER
----------	--------------

3752

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/827,042**

Applicant(s)  
**Martucci et al.**

Examiner  
**James F. Hook**

Art Unit  
**3752**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Sep 24, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-19 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

Art Unit: 3752

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5-7, 12-14, 16, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Horne. The patent to King discloses the recited hose assembly comprising a tubular first layer 12 made of a polymeric material resistant to chemical and heat degradation, which can be provided with carbon black 16 to dissipate electrical charge, a jacket layer 11 disposed about the inner layer, and at least one aramid fiber braided layer 13 disposed between the inner and jacket layers where the use of an aramid fiber layer will allow the layer to be "capable" of passing tests due to the inherent properties of the fibers being used, where glass fibers also can be used in combination with the aramid fibers, where the inner and jacket layers can be formed of a fluorocarbon material such as PTFE, and a coupling means 30 can be provided on the hose ends. The patent to King also states that the outer layer 14 holds the fabric layer in place, and that the layer adds abrasion resistance. Layer 14 is also described as a coating that coats the yarns, therefore it is considered to be a layer formed over the yarn layer. The patent to King discloses all of the recited structure with the exception of forming the outer layer by

Art Unit: 3752

extruding it. The patent to Horne discloses the recited hose assembly comprising an inner layer 2, a reinforcement layer 3 made up of different fibers where the outer layer 4 can be extruded over and then embedded in the reinforcement layer. It would have been obvious to one skilled in the art to modify the outer layer of King by using an extrusion process to place the layer on the outside of the reinforcement layer and then embed it into the reinforcement layer as suggested by Horne as such would be an easier process to use without requiring thinning of the polymer layer for application.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Horne as applied to claims 1-3, 5-7, 12-14, 16, 17, and 19 above, and further in view of Nie. The patent to King as modified discloses all of the recited structure with the exception of forming the polymeric first layer of a polyketone. The patent to Nie discloses that inner tube layers 14 can be formed of polyketones when desired to meet the environmental needs of the hose to resist permeation of specific materials to be carried by the hose. It would have been obvious to one skilled in the art to modify the inner layer in King as modified to be formed of a polyketone material to meet environmental needs of the user, as polyketones have specific uses for materials being carried by the hose as suggested by Nie.

4. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Horne as applied to claims 1-3, 5-7, 12-14, 16, 17, and 19 above, and further in view of Martucci (527). The patent to King as modified discloses all of the recited structure with the exception of extruding the jacket layer and forming it of polyamide. The patent to Martucci

Art Unit: 3752

discloses the recited hose assembly comprising an inner layer 12 provided with a carbon black strip 16, a reinforcement woven layer 26, where a jacket layer 14 can be extruded over the reinforcement and inner layers, and can be formed of polyamides including nylon 6 and others. It would have been obvious to one skilled in the art to modify the jacket layer in King as modified to be formed by extruding as such is a known method of putting a jacket layer on a tube which is easier to use to achieve a multilayer tube, and to form the outer layer of polyamides such as nylon 6 as such is a known material that is resistant to abrasion and damage as suggested by Martucci.

5. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Horne as applied to claims 1-3, 5-7, 12-14, 16, 17, and 19 above, and further in view of Martucci (084). The patent to King as modified discloses all of the recited structure with the exception of forming the inner layer of expanded fluoropolymers. The patent to Martucci discloses the recited hose assembly comprising an inner layer 116 which can be formed of expanded or foamed fluoropolymers such as PTFE, where reinforcements 121 are provided over the foamed layer, and end couplings 130 are also provided. It would have been obvious to one skilled in the art to modify the inner layer of King as modified by forming the layer of a foamed material as such is known in the art to form the inner layer of a foamed fluoropolymer to allow for easier attachment of couplings at the end as suggested by Martucci.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over King in view of Horne as applied to claims 1-3, 5-7, 12-14, 16, 17, and 19 above, and further in view of

Art Unit: 3752

Kutnyak. The patent to King as modified discloses all of the recited method of forming the hose assembly with the exception of dipping the tube in an adhesive before putting the reinforcement aramid layer on the inner tube. The patent to Kutnyak discloses the recited method of forming a hose assembly comprising providing an inner layer 12, and dipping the layer in an adhesive before applying a reinforcement layer 13 over the inner layer to adhere the reinforcement to the inner tube. It would have been obvious to one skilled in the art to modify the method of forming the tube in King as modified by providing a step of dipping the inner tube in adhesive before applying the reinforcement layer to provide better connection of the reinforcement to the inner layer to prevent delamination as suggested by Kutnyak.

Art Unit: 3752

***Response to Arguments***

7. Applicant's arguments filed October 7, 2002 have been fully considered but they are not persuasive. It is set forth by applicant that the use of aramid fibers allows applicants article to be capable of passing a volumetric and whip test, and in the same manner it is considered that the patent to King which teaches using aramid fibers in a reinforcing layer will also be capable of passing such tests when no specific criteria are required by the claim language other than being capable of passing tests, therefore such an argument is not persuasive, and the rejections under King are considered to be still applicable. With respect to the outer layer of King not teaching attaching the braided layer to the inner liner using the jacket layer, such is more specific than the claim language which does not require the jacket layer to "affix the braid to the inner layer", therefore such is not a persuasive argument. With respect to use of Nie, it is considered that the teachings of Nie are used only in modifying the make up of the inner liner and was not used to modify the reinforcing layer, therefore any argument directed toward the lack of teaching of reinforcement layers in Nie is not a persuasive argument.

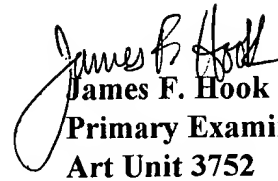
***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Mutzner, Searfoss, Igarashi, and Green disclosing state of the art multilayer tubes.

Art Unit: 3752

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Hook whose telephone number is (703) 308-2913.

J. Hook  
October 21, 2002

  
**James F. Hook**  
**Primary Examiner**  
**Art Unit 3752**